Claims

1. A moving body satellite communication apparatus comprising:

an antenna mounted on a moving body and including an anisotropic radome;

90° phase combiners connected to the antenna and constituting control systems of at least two channels for each of transmission and reception;

a variable phase shifter inserted in each of the control systems of the two channels;

a first variable attenuator connected in series to the variable phase shifter; and

an antenna control circuit for performing attitude control of the antenna according to a relative positional relation between the moving body and a satellite, characterized in that the antenna control circuit includes:

a first correction table storing radome correction data for frequencies and polarization angles of the antenna, the variable phase shifter and the first variable attenuator are controlled by referring to the first correction table,

a second variable attenuator is inserted at an input side of the transmission side 90° phase combiner, and

a second correction table having correction values to influence by control of the first variable attenuator upon EIRP,

wherein the second variable attenuator is controlled by referring to the second correction table.

2. A moving body satellite communication apparatus according to claim 1, characterized in that the radome correction data of the first correction table is obtained by variously changing directivity (direction) of the antenna to a frequency f and a polarization angle θ and by measuring a shift of a phase angle and a change of a transmission amplitude due to influence of the radome.

3. A moving body satellite communication apparatus according to claim 1, characterized in that the second correction table includes an antenna gain table and a radome loss table, and each of the tables is made to have the correction values to the influence by the first variable attenuator upon the EIRP.

4. A moving body satellite communication apparatus according to claim 1, characterized by comprising a high-power amplifier connected in series to the variable phase shifter provided at the transmission side and for amplifying transmission power of the variable phase shifter, wherein the antenna control circuit includes a third correction table storing correction data for influence of a saturation characteristic of the amplifier, and the variable phase shifter and the first variable attenuator are controlled by referring to the third correction table.

5. A moving body-satellite communication apparatus according to claim 4, characterized in that the third correction table has correction values of an amplitude and a phase to the influence generated by the saturation characteristic of the amplifier upon the radome correction data.